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PROBLEMS ASSOCIATED WITH USING INFORMATION TECHNOLOGY IN TEACHING: A RESEARCH PROPOSAL

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Abstract

A few years ago, many people predicted that the Internet would drastically change the way we teach and learn. They believed that Web-based courses might eventually replace many traditional instructor-lead courses conducted in brick-and-mortar classrooms. Such a dramatic prediction raised a great deal of interests and concerns. Many universities and entrepreneurs began to offer Web-based courses in various subject areas (Melcher, 1999; Winston, 1999; Stone, 1999). The prediction has not come true after several years of experimentations. Many organizations that offer Web-based courses, especially those without the support of existing educational institutions, have vanished. Those that survived also fall short of creating a significant impact as once predicted. Traditional colleges and universities are still thriving with rapidly increasing enrollments. Classes that rely on lectures and blackboards as the primary way of teaching are still well accepted by students of the Internet generation. Increasingly, people have realized that information technology may never entirely replace human instructors in the foreseeable future.

Problems Associated with Using Information Technology in Teaching

Information technology is nevertheless a wonderful tool for teaching and learning. There is no doubt that the Web, e-mail, and other Internet tools can be used to assist or even enhance teaching and learning (Alavi, et al., 1995; Schulman and Sims, 1999; Radhakrishnan and Bailey, 1997; Neal, 1998). However, it requires carefully orchestrated efforts to make the technology tools work smoothly with lectures and other components of traditional teaching (Huang, 1996-1997; Mahoney, 1998; Spooner, et al., 1998). There are many problems associated with the use of information technology in traditional classroom settings. Some of these problems can be avoided. The others may require changes of the paradigm. The following is a list of a few common ones.

- Finding time to create course Web sites is difficult for many instructors.
- Constantly changing course Web sites confuse students who expect a steady and structured learning approach.
- The availability of course Web sites cause many students to think that there is no need to attend classes.
- Over use of e-mail to send students supplementary information creates information overload.
- The large number of e-mail messages may overwhelm instructors.
- Accepting assignments electronically creates administrative nightmare.
- Allowing portable computers in classrooms cause troubles.

The Proposed Study

The problems listed above are based on the author's personal experiences, opinions, and assumptions. A more scientific study is needed to derive more objective information regarding the use of information technology in teaching, problems, and potential solutions.

Methodology

The proposed study will contain two phases. The purpose of Phase-I is to derive a list of problems caused by using information technology in teaching and the severity of the problems. This phase will be accomplished by conducting a survey of instructors who use information technology in classrooms.

The purpose of Phase-II is to derive a set of potential solutions to the problems that are deemed as more important by instructors. This phase will be accomplished by conducting a Delphi study using a panel of experienced instructors who use information technology extensively.

Conclusion

The trend to integrate information technology into teaching is unavoidable. Many problems will occur during the integration process. Some problems may be solvable while others may require changes of the paradigm. The proposed study will focus on the solvable ones to help ease the process of adopting information technology into teaching and learning.

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